

**Kharrazi, M. (1994). 1992 Survey of health complaints in office buildings, California Department of Health Services.**

**EXECUTIVE SUMMARY**

**Introduction:**

Since June 1990, the Department of general Services has taken steps to identify the source(s) of numerous air quality complaints in the twin office towers at 714/744 P Street (OB 8/9) in Sacramento, California. Upon the recommendation of an interdepartmental committee, formed in December 1991, a health survey was conducted in 1992 to identify floors with the highest and lowest rates of work-related symptoms. The main purpose of the survey was to help guide future physical investigations of the two buildings.

**Methods:**

Over 2,000 current and former workers in OB 8/9 were surveyed. On January 1992, attendance clerks distributed questionnaires asking about age, gender, employment history and historical information on several symptoms and illnesses. Work-related symptoms were defined as those symptoms which improved within a specified time after leaving the work site. Floors were ranked according to rates of irritant, respiratory, and infectious symptoms using multivariate analyses to control for the effects of gender and bargaining unit.

**Results:**

A total of 1,034 current and former employees were included in the analysis, resulting in a participation rate of 49%. Compared to the results of a recent California building study, rates of certain neurobehavioral and infectious symptoms in OB 8/9 were elevated and rates of certain irritant, respiratory, musculoskeletal and non-specific symptoms in OB 8/9 were similar. There was a statistically significant increase in reporting of work-related irritant, respiratory, and infectious symptoms among females and employees represented by Bargaining Units 1 (Professional Administrative, Financial and Staff Services) and 4 (Office and Allied Workers). Increased reporting of these symptoms was not found to be related to cigarette smoking, age, number of months at the work site, or former vs. Current or maintenance vs. Non-maintenance work status. Statistically significant higher rates of irritant, respiratory and infectious symptoms were reported by workers on OB 9 floors B (71%, 5 (73%, 9 (70%), and 15 (67%). These floors had rates which were 49-62% higher than the average OB 8/9 rate (45%). A statistically significantly lower rate of these symptoms was reported by workers on OB 8 Floor 8 (32%), which was 31% lower than the average OB 8/9 rate. Seventeen employees (1.7%) reported being told by a physician that they have chronic fatigue syndrome. The Centers for Disease Control and Prevention (CDC) is currently conducting a separate investigation of chronic fatigue syndrome to determine whether an excess of cases exists in the two building (a report is due shortly).

**Discussion:**

Available survey data do not clearly explain these results. Analysis of floor response rates does not suggest that low survey participation biased the symptom prevalence rates. Varying the definition of work-related symptoms did not change the high and low complaint floors. Including and excluding former OB8/9 employees in the analyses did not alter the findings. We

recommend that: 1) further inspections be carried out of the heating, ventilation and air conditioning systems in a number of high and low complaint floors to identify possible sources of contamination, 2) involvement from the National Institute of Occupational Safety and Health (NIOSH) be sought to find solutions to the elevated symptom rates on certain floors of OB 8/9 using the latest intervention strategies, and 3) an evaluation of the employee complaint reporting and communications system be done and, if necessary, steps taken to ensure that the system is adequate to monitor symptom complaints so that any new trends in complaints can be identified.